

SUNS District Installation Guide

Revision 1.01
August 3, 2005

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Overview

There are four district level components for SUNS:

- SIF Agent for SASIXP
- Student Locator SIF Agent
- SIFWorks ZIS
- Microsoft SQL Server Desktop Engine (MSDE)

You should have received a CD-ROM with this document. If you cannot locate your CD-ROM or it has been damaged, please contact the DTS staff.

The CD-ROM contains the SUNS Installation Wizard which will install these components.

Install Forms Data

Previously you were asked to complete several forms on an Internet website (the Install Forms), detailing information about your SASIXp and other systems. It is critically important that your Install Forms web application data be complete and correct before you begin installation. The SUNS Installation Wizard will actually go out over the Internet to the web application to gather the information you entered.

Upgrade Windows XP to Service Pack 2

If your SUNS machine runs Windows XP, upgrade it to Service Pack 2 before installing SUNS. This is mandatory if you have any SASI shares on NetWare servers, and highly recommended even if you don't. Service Pack 2 addresses a Microsoft-specific bug that affects connectivity, especially to NetWare servers.

If your SUNS machine runs some other version of Windows (Windows NT 4, Windows 2000, or Windows Server 2003), then you don't have any need to update.

Have Users Exit SASIxp

If at all possible, have all users out of SASIxp before beginning the installation procedure. This will allow the installer to make updates to SASIxp in all your schools. If this is not possible, then the installer will record a file informing you of which changes will need to be made manually at each school.

Setting Up the User Account

Before installing the software, you must set up a Windows user account with specific rights on the SUNS computer (in other words, the machine where you will run the Installation Wizard). This account, which we will call **sifuser**, will have administrative rights to and have the “log on as a service” security property for your district’s SUNS computer.

Two sets of instructions are provided, one for Windows 2000 and Windows XP, and the other for Windows NT 4.

Note that you can also use an existing account (such as a task server account) if you use this procedure to set the “log on as a service” security policy for that account, and if the existing account has read/change (or read/write) access to all SASIxp data.

Important Note: ZENWorks and Other Management Tools

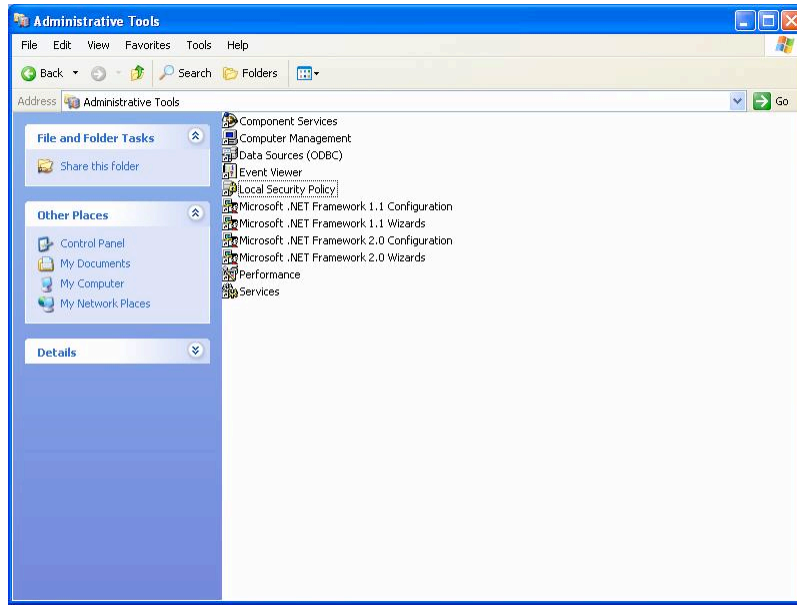
Some desktop management tools, such as Novell ZENWorks, Microsoft SMS, Altiris and LANDesk Management Suite, may interfere with the security policies you will be setting in this chapter. If you find that the “log on as a service” security property does not remain active for your user account after a reboot, check the “Log on as Service” Property Does Not Stick section later in this document.

Student Locator User Account (Windows 2000 or Windows XP)

These instructions will tell you how to create a new user account and specify the “log on as a service” property for Windows 2000 or Windows XP. If you are planning to install on a Windows NT machine, then see the next section instead of this one.

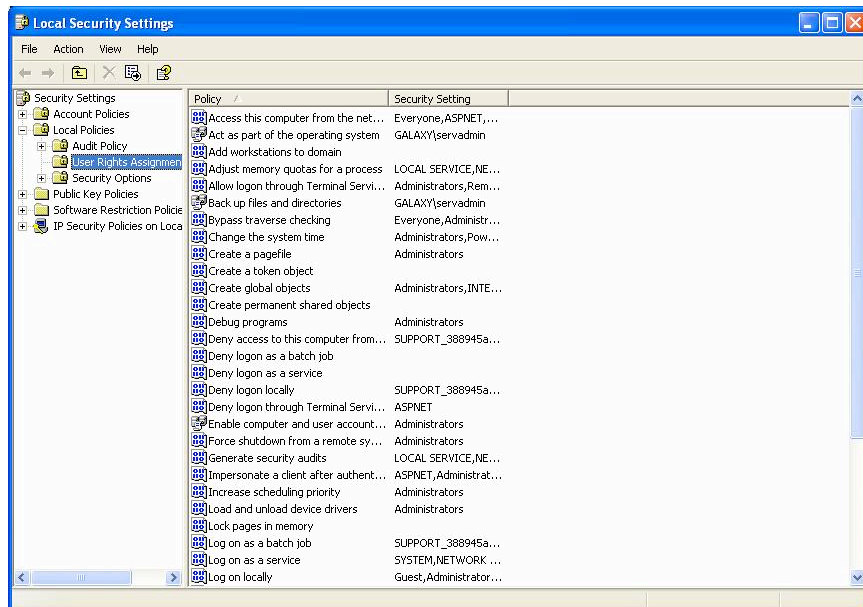
- 1. Create a new user account called “sifuser”; do this as you normally would for a Windows user account (using Computer Management if this is a standalone Windows 2000 or Windows XP machine, or Active Directory Users and Computers if this machine is in an Active Directory tree).**
- 2. Add the user you just created to the (local) Administrators group for this machine.**
- 3. If you are running Windows 2000 or Windows XP on this machine, then find and run the Local Security Policy applet.**

The Local Security Policy applet can be in different locations depending on which operating system you use. Under Windows 2000 and Windows XP, it is located in Control Panel --> Administrative Tools (you may have to change your Control Panel view to “Classic View” in order to find it). The image below shows Windows XP.



4. Run the Local Security Policy applet (double-click it).

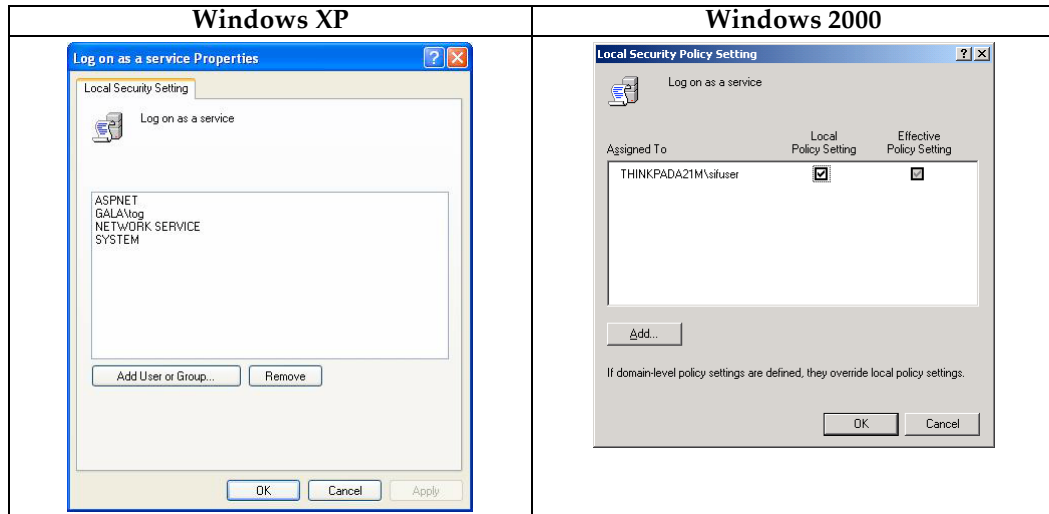
You see the Local Security Settings window, as shown below.



5. In the left pane, expand “Local Policies” and then expand “User Rights Assignment” as shown in the image above.

6. In the right pane, double-click the “Log on as a service” entry.

You see the ‘Log on as a service’ properties window as shown below.



7. If you are running Windows XP, click the “Add User or Group...” button; if you are running Windows 2000, click the “Add...” button.

A standard window for selecting local and/or domain users appears.

8. Enter the name sifuser and click the “Check Names” button.

You may be prompted for a name and password for an administrator, depending on your system’s configuration. If you are prompted, enter the administrative user information and click OK.

The name sifuser is underlined to show that it is a valid account name.

9. When the name sifuser is correctly entered, click OK.

The user selection window closes and the name appears in the list in the “Log on as a service” properties window.

10. Click OK.

The “Log on as a service” properties window closes and you see the Local Security Settings window.

11. Close the remaining windows.

12. On each machine (Windows or NetWare) that has SASIxp data files for your schools, and using the appropriate tools for the operating system, make sure that the account you just gave the “Log on as a service” right to has READ and CHANGE (or READ and WRITE) security permissions to the SASIxp folder, DATAFILES folder and all files therein.

The specifics of this step will vary depending on whether you use Windows or NetWare to store your data files and on other configuration information specific to each school and district. For example, you may have to create the same username and password twice, once as a local machine account (with the “log on as a service” property) and once as a network account. Check with your district network staff if you are unsure.

Student Locator User Account (Windows NT only)

This procedure is to be used only if the machine where you plan to install the district software components for SUNS runs Windows NT 4. If it runs Windows XP or Windows 2000, see the previous section. These instructions will tell you how to create a new user account and specify the “log on as a service” property for Windows NT.

1. Create a new user account called “sifuser”; do this as you normally would for a Windows user account (with User Manager or User Manager for Domains, both referred to after this as “User Manager”).

2. Add the user you just created to the (local) Administrators group for this machine.

3. In the same User Manager program where you created the user, select User Rights from the Policies menu item.

You see the User Rights Policy window.

4. In the User Rights Policy window, make sure that the “Show Advanced User Rights” check box is checked (marked).

If the check box is currently cleared (empty), click it so that a check mark appears.

5. From the “Right” menu, select “Log on as a service”.

The “Right” menu is the menu in the middle of the User Rights Policy window. If you don’t see “Log on as a service” in the menu then you need to make sure “Show Advanced User Rights” is checked.

6. Click the “Add...” button.

A standard window for selecting local and/or domain users appears.

7. Enter the account name sifuser and click OK.

The user selection window closes and the name appears in the “Grant To” list of the User Rights Policy window when “Log on as a service” is selected in the “Right” menu.

8. Click OK.

The User Rights Policy window closes and you see the User Manager.

9. Close the User Manager.

10. On each machine (Windows or NetWare) that has SASIxp data files for your schools, and using the appropriate tools for the network operating system, make sure that the account you just gave the “Log on as a service” right to has READ and CHANGE (or READ and WRITE) security permissions to the SASIxp folder, DATAFILES folder and all files therein.

The specifics of this step will vary depending on whether you use Windows or NetWare to store your data files and on other configuration information specific to each school and district. Check with your district network staff if you are unsure.

Installing the Software

The software is delivered in a single installer program on the CD-ROM.

[IMPORTANT NOTE—All Users]: If at any point in this procedure before the last step, you see a prompt asking if you want to reboot the server, click No and continue. It is important that this procedure be followed all the way through to the end (the step where you click “Done”) without stopping. **Don’t reboot until the end of the process.**

[IMPORTANT NOTE—Windows XP]: If during installation you see a Windows Security Alert, click the Unblock button in the Alert window.

1. Make sure your SUNS machine is logged out; if necessary, log it out now.

“Logged out” here means that you are looking at the Windows login screen. It is very important to start from a logged out system.

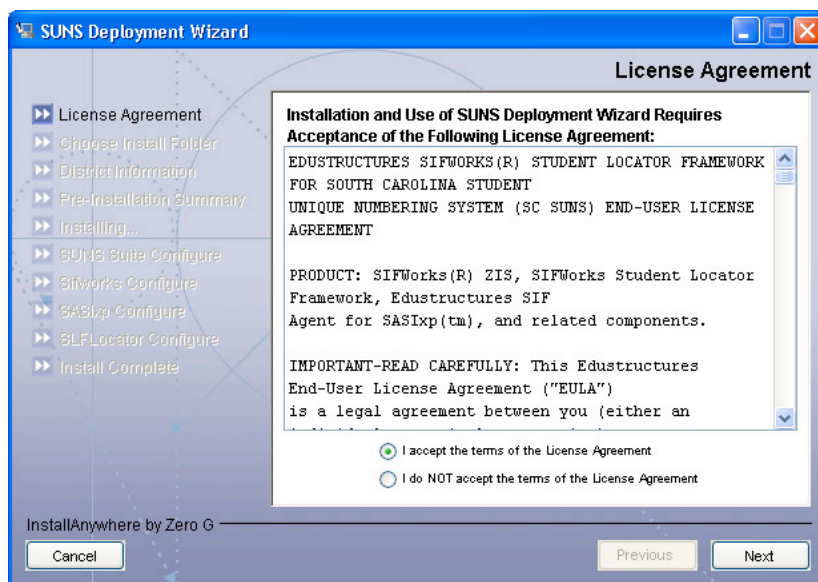
2. Log in using the sifuser account and password.

NOTE: It is critically important that you run the installation as the **sifuser** account. Important tests are run that will fail otherwise. If you are using another account for SUNS (such as the task server account) log in with that account at this step.

2. Insert the CD-ROM.

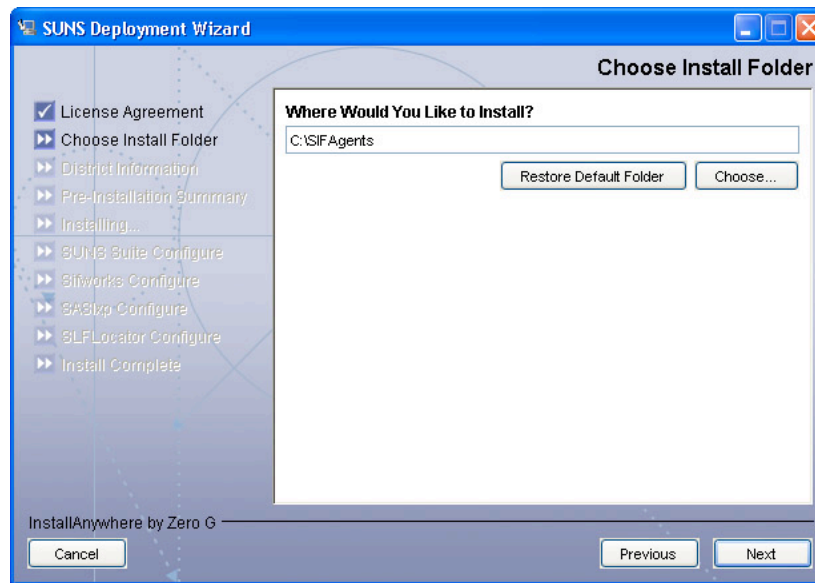
3. Run the installation program (SUNS.exe).

You see a message that the installation program is preparing to install, and then you see the first screen of the installation wizard itself.



4. Click on “I accept the terms of the License Agreement” and then click Next.

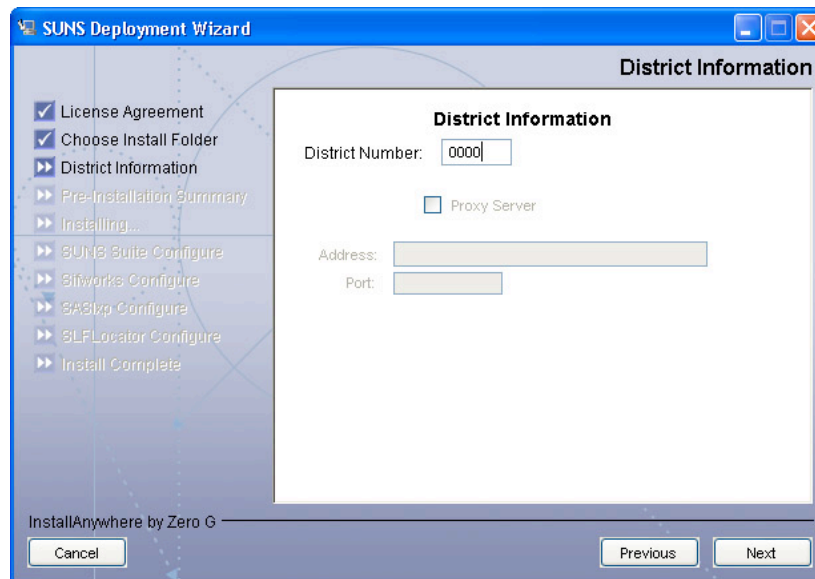
You see a screen asking where you would like to install the SUNS components.



5. Click Next to accept the default location, or type in a new path then click Next to specify a custom location. **DO NOT** specify a path that has spaces in any of the folder names; for example, do not specify a path under “C:\ Program Files” because the space will cause SUNS to fail.

If you start changing the path and then want to return to the default, click the “Restore Default Folder” button. To use a file browser to pick the location, click the “Choose...” button, choose the location, and then click Next.

After you click Next, you see the District Information window.



6. Type in your district's four digit identifying number in the District Number field and click Next.

If you have a valid connection to the Install Forms server, then after a short wait, you see the Verify District Configuration window, which displays in a table the information you previously entered into the Install Forms.

SUNS Deployment Wizard

Verify District Configuration

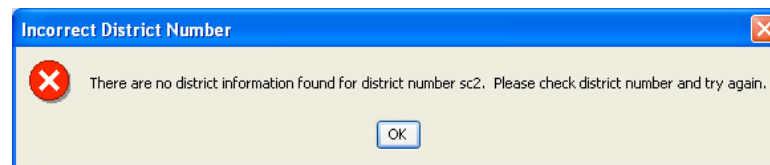
Double click a cell to edit.

| Name | Value |
|---------------------------|------------------------|
| DISTRICT_NAME | Erewhon |
| DISTRICT_LOCAL_ID | 1234 |
| DISTRICT_STATE_ID | 5678 |
| DISTRICT_NUM_SCHOOLS | 4 |
| DISTRICT_ADDR_LINE1 | 11234 Smith Rd. |
| DISTRICT_ADDR_LINE2 | |
| DISTRICT_ADDR_LINE3 | |
| DISTRICT_CITY | |
| DISTRICT_STATE | |
| DISTRICT_ZIP | |
| PRI_SASI_DISTRICT_CONTACT | |
| PRI_SASI_DISTRICT_EMAIL | smith@edstructures.com |
| PRI_SASI_DISTRICT_PHONE | |
| SASI_OPT_CONCERT | |

InstallAnywhere by Zero G

Cancel Previous Next

If instead you see a message indicating that no district information was found, then you have a connection problem to the Install Forms server. Please refer to the section *Installer Can't Load District Information* under *Troubleshooting*, later in this guide. Take the steps listed there to get the data from the Install Forms onto your system. Then come back to this step and continue with the installation from this point.

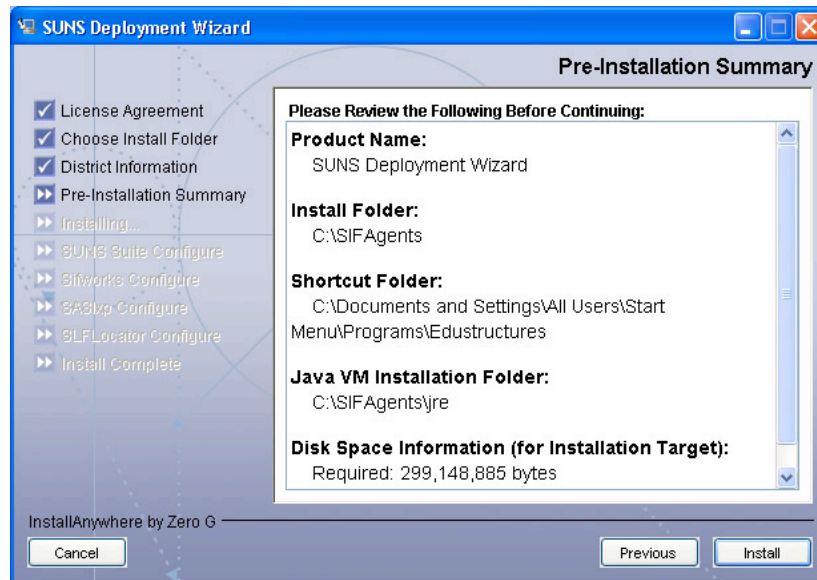


7. Once you can see the Verify District Configuration window as shown above, read over the information and make sure it's correct. If there's an error, or if there's been a change since the last time you edited your Install Forms, click Cancel, then go correct the information in your Install Forms and then restart the installation.

It's best to fix the Install Forms so that information is always correct and up to date.

8. When you're sure that the information is all correct, click Next.

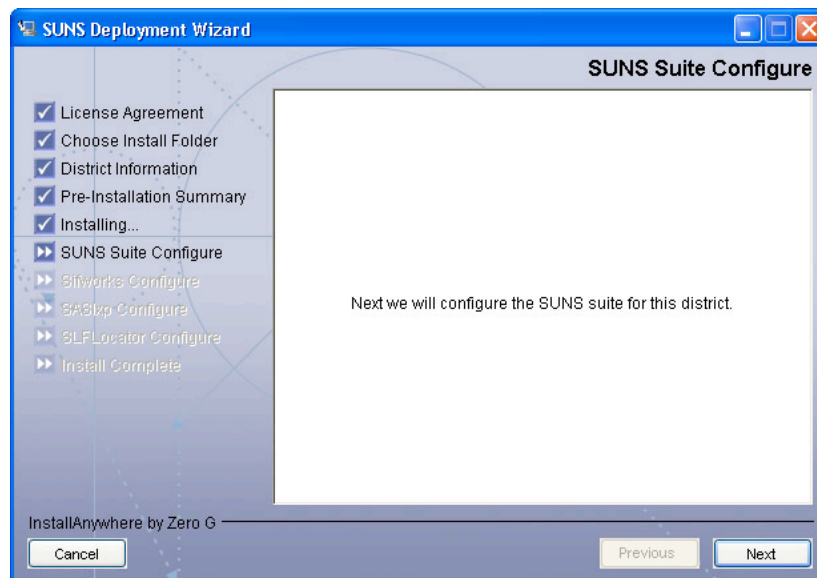
You see a "Pre-Installation Summary" window that shows key information about your installation choices.



9. Review the summary information; if any of it is incorrect, click “Previous” until you reach the screen where you can fix the information, then fix it. When all of the summary information is correct, click Next.

After you click Next, you will not be able to go back and make changes; you will have to reinstall to make changes. So be sure the Pre-Installation Summary reflects what you want.

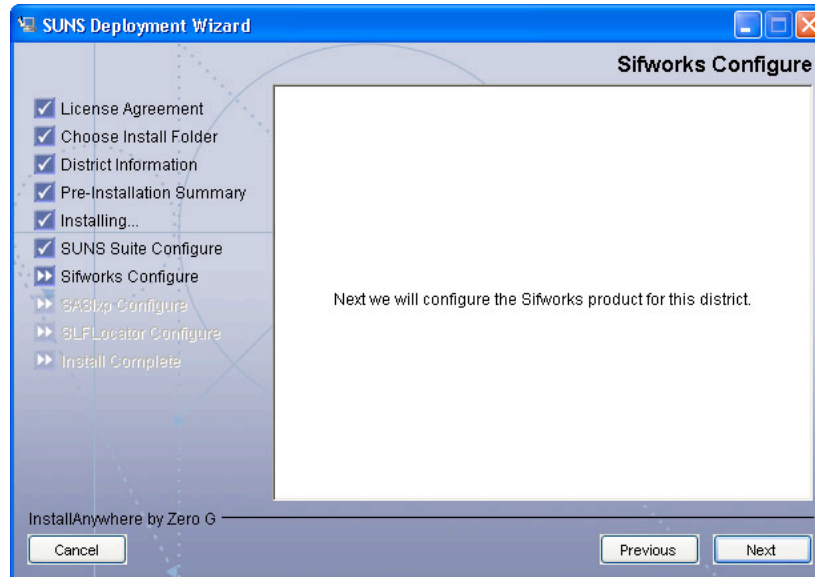
You see a window (called “Installing SUNS Deployment Wizard”) that shows a progress bar, and some other messages as various components are installed. Then you see the SUNS Suite Configure window.



10. Click Next.

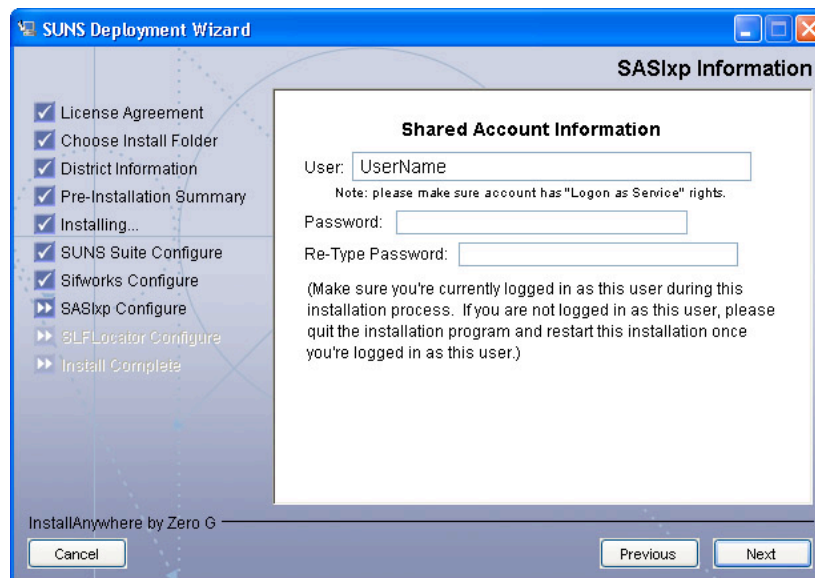
You see a message asking you to wait, and then other messages as MSDE and other components are set up. If you see a message asking if you want to reboot, click No.

When the components are set up, you see the SIFWorks Configure window.



11. Click Next.

You see the SASIxp Information window.

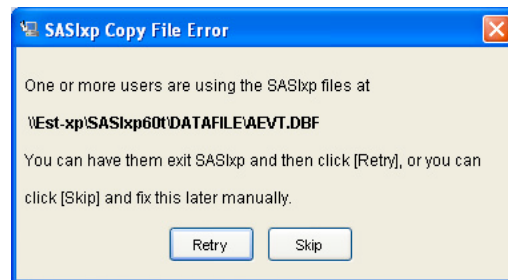


12. Type in the User account name you identified at the beginning of this procedure, and then type in the password for that account twice (in the Password and Re-Type Password fields).

The User name convention is “username” with no network-related information.

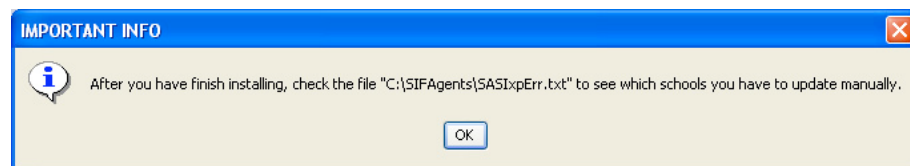
13. After entering the User name and password, click Next.

If you see windows like the following, someone is using SASIxp. You can have them quit, or skip that file and manually fix it later.

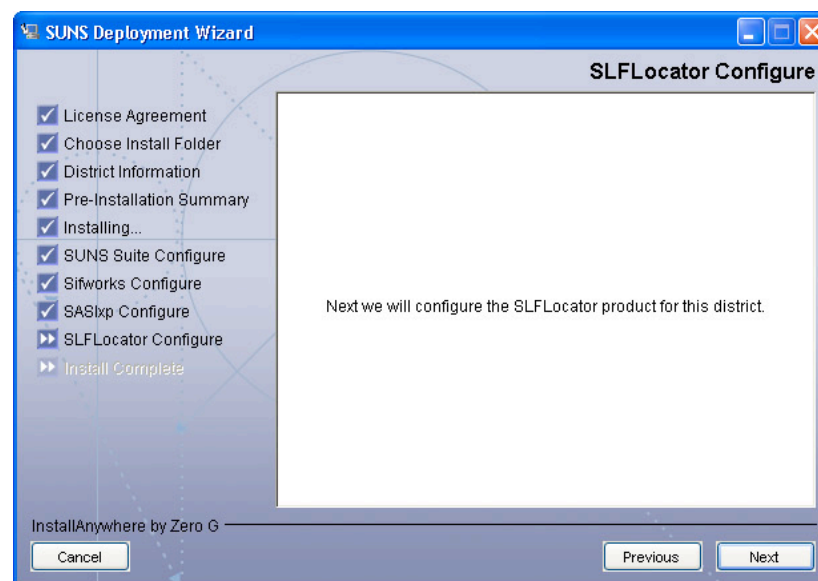


a) If you call the user and have them log off, then click **Retry** and the Installer will try again to write the file.

b) If you want to continue and manually fix this file later, click **Skip**. If you click **Skip**, you will see a message like the following:



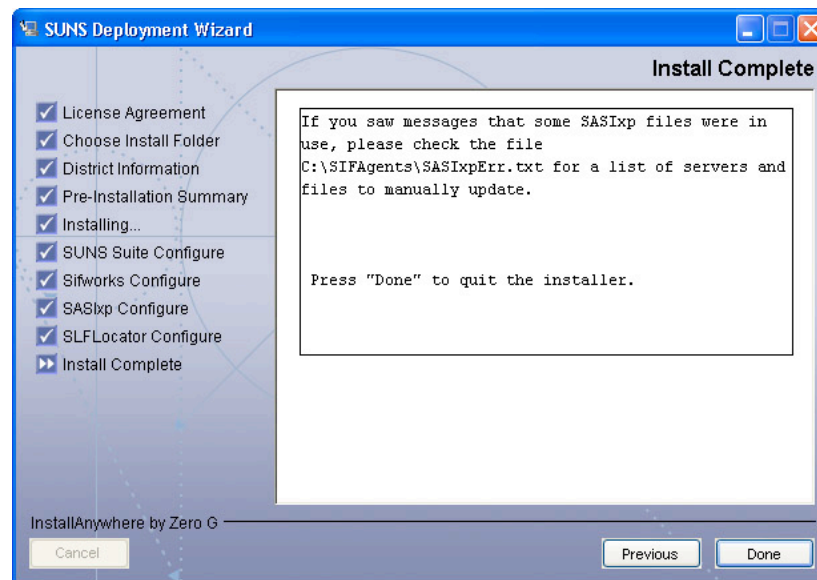
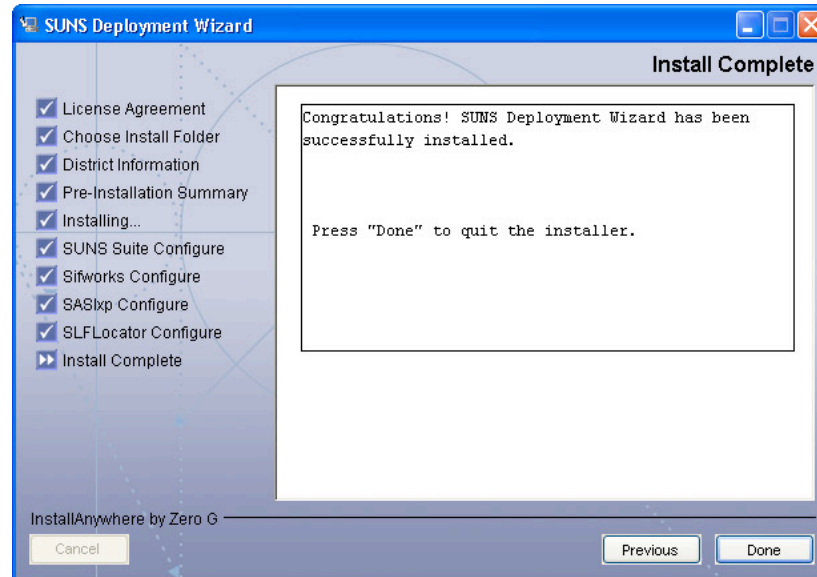
After the SASIxp files are completely installed (or you’ve Skipped the ones that can’t be installed now), you see the SLF Locator Configure window.



14. Click Next.

The installer configures the product. After a short time, you see the “Install Complete” window.

If there were no open SASIxp files, it will look like the first of the images below; if there were some open SASIxp files, it will look like the second image.



In rare instances, there will be an area with two buttons saying “Yes, restart my system” and “No, I will restart my system myself.” It’s a little better to mark the “No” button before continuing but there’s no harm in either one.

15. Click Done to exit the installer.

If the installer reported errors, please review the section go look at the file “SASix-pErr.txt” for information on how to overcome the errors. Repair them as soon as possible. Affected schools will not participate in SUNS until the errors are rectified.

16. If your machine runs Windows XP with Service Pack 2, complete the following sub-steps; otherwise, go on to Step 17. This Step is MANDATORY for all machines that run Windows XP with Service Pack 2.

a) From the Start menu, select Control Panel, and then in the Control Panel, open Windows Firewall.

You see the Windows Firewall window.

b) In the Windows Firewall window, click on the Exceptions tab.

You see the list of exceptions.

c) Click the Add Program button.

You see a list of programs with a Browse button at the bottom.

d) Click the Browse button.

You see a navigation window.

e) Navigate to your installation folder and then down to the **jre\bin** folder within it (by default, the location will be **c:\SIFAgents\jre\bin**).

f) Highlight **javaw.exe** and click Open.

g) Repeat steps c through f, selecting **java.exe** in the same **jre\bin** folder.

Your Exceptions window should now list **javaw.exe** and **java.exe**. It may list other versions of java.exe and javaw.exe from other Java installations; this is not a problem.

h) Click OK to close the control panel window.

17. Reboot the machine.

It is important to reboot the machine before using SUNS as the SUNS services may not work correctly until it is rebooted.

18. After reboot, work through the Post-Installation Checklist (next chapter of this guide).

The Post-Install Checklist helps you verify that your system is working. If your system does not pass the Checklist please contact DTS support.

Post-Installation Checklist

There are three areas to check to verify SUNS functionality after installation.

Is the Software Running?

All software is installed as Services. Open the Services applet and review the list to determine if all five of the entries shown below are present and in the "Started" state. (The Services applet is usually located either in Control Panel --> Administrative Tools --> Services or in Control Panel --> Services.)

- Edustructures SASIxp SIF Agent
- Edustructures SASIxp SIF Agent Database
- MSSQL\$EDUSTRUCTURES
- SIFWorks ZIS
- SIF Student Locator

There may be a sixth service called "SQLAgent\$EDUSTRUCTURES" which is set to the "Manual" start mode and which you do not need to particularly check, as it is used only on an "as-needed" basis by the other SUNS software.

Are the Agents Registered?

Special note: If you have T-1 or slower connections from your SUNS machine to the school servers, it may take a while before your installation will pass this check. See especially Step 6 below.

1. Open the SIFWorks ZIS Console from the Start menu (Start --> Edustructures --> ZIS --> ZIS Console),

You see a web browser with the SIFWorks ZIS login page.

If this is the first time you've done this, you see a page asking you to specify a password for the ZIS "admin" account. Enter the password you want and go on.

2. Log in to the ZIS as "admin"

You see the console, with a "tree view" on the left.

3. In the tree view, click on Zones

You see a list of the Zones with basic information.

4. Make sure there is one zone for each of your schools that will be using SIF-based resolution of unique student identifiers.

5. Click on a zone name

You see more detailed information about the agents in that zone

6. Make sure both agents (SASIXp and Student Locator) are registered in Push mode in the zone and that each agent's Queue is empty


Very Important: If you have T-1 connections to your schools, it may take up to two hours for all of the SASIXp agents to register in all the zones. This is normal and only happens the first time.

On the other hand, the Student Locator Agent should show as “registered” immediately.

7. Repeat steps 4 and 5 for each zone listed

Is Student Locator Set Up?

**1. Open the Student Locator Console from the Start menu
(Start --> Edustructures --> Student Locator --> Student Locator Console).**

A small icon  is added to the “System Tray” at the lower right of your Windows desktop.

2. Click the icon in the System Tray.

You see the a message asking if you want to connect the console to the agent running “On this computer” or “On a remote computer”, with the button for “On this computer” selected.

3. Leave the “On this computer” button selected and click Connect.

You see the Student Locator Agent console. The main view shows the State and local Zones.

4. Make sure there is a green checkmark icon to the left of the State zone name.

Don't worry about the other information as long as the checkmark is green. Ideally at this point the Status for the state zone will read “Idle” as well.

5. Click the + sign at the left of the “District Zones” label and make sure there is one zone for each of your schools that will be using SIF-based resolution of unique student identifiers.

6. Make sure there is a green checkmark icon to the left of each school name.

7. Click on the Schools button at the left of the window.

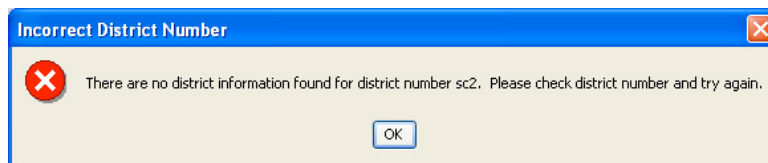
You see a list of schools.

8. Make sure there is an entry for each of your schools.

Troubleshooting

Installer Can't Load District Information

The installer will try to load your district information from the InstallForms web site where you entered it at the beginning of the SUNS project. However, firewall and proxy servers may interfere with the installer's ability to do this. If the installer is unable to get the correct information you will see the following window:



When you see that window, first try the procedure under "Proxy Settings" below.

Proxy Settings

1. Click OK to close the "Incorrect District Number" window.
2. Click the the Proxy Server check box so that it is marked.
3. In the Address and Port fields, enter the IP address and Port of your district's proxy server. Note that for the Address, you can enter a numeric IP address or a machine name, but if you enter a machine name it must accurately resolve to the correct IP address. Check with your network administrator for details.
4. Click Next.
5. If all goes well, it should continue to the "Verify District Configuration" screen. Go back to Step 7 of the "Installing the Software" procedure.

If you see the same "Incorrect District Number" window again, double check the proxy settings. If they are correct, then go on to the "Manual Acquisition of district.xml File" procedure.

Manual Acquisition of district.xml File

1. Click OK to close that "Incorrect District Number" window and then click Cancel to stop the installer.
2. Open Internet Explorer and go to the location

<http://installforms.edustructures.com/deploywizard/config.jsp?distnum=####&statecode=SC>

substituting your own 4-digit district code for the #### in the line above.

You see a web page with the xml text of your district information.

3. Select all of the text in the web page and then choose Copy from the Edit menu.

-
4. Open Notepad and paste it into a new document.
 5. Save the document.
 6. Change the document's name to district.xml (make sure it's district.xml and not district.xml.txt; sometimes Windows hides filename extensions so you may have to open up a "DOS box" or Command Prompt to verify the file name).
 7. Create a folder at the top level of your SUNS machine's C:\ drive and name it suns_defaults.
- This folder must be precisely c:\suns_defaults\
8. Move the district.xml file to the location c:\suns_defaults
 9. Start over at the beginning of the "Installing the Software" procedure.

State Zone is Not Green In Student Locator

If the State Zone does not have a green checkmark to the left in the Student Locator console, then there is some kind of connection problem between your district and the state Zone Integration Server (ZIS). This may be a firewall issue, or your Internet connection may be down, or the State's connection may be down.

Your firewall administrator should make sure that ports 7080 and 7443 are open to the address `zis.myschools.com`

"Log on as Service" Property Does Not Stick

Occasionally, after a reboot, the "Edustructures SASIxp SIF Agent" service will not start. Attempting to start it manually will result in an error relating to authentication or login. This is a sign that the "Log on as Service" property either was never set or has been lost or reset.

First, follow the procedure in "Setting Up the User Account" to set the "Log on as Service" property for the account, and then reboot.

If the symptom reoccurs, the property is being reset. Such a reset is usually the result of security or management software such as Novell ZENWorks, Microsoft SMS, Altiris or LANDesk (or similar tools) resetting the account for security policy purposes.

There are two solutions to this issue:

- You can have your network staff reconfigure the management tool to leave the specific user account alone, while still managing other aspects of the SUNS machine.
- Because the SUNS server is typically not a user workstation, and many districts use management tools primarily for desktops, you may wish to simply remove the management client software for your management tool, and apply security policies manually rather than through the automated tool.

Rebooted during Installation

If the machine is rebooted for any reason during installation, just restart the installation at the beginning and it should proceed through.

“Invalid Instance” Warning during Installation

Sometimes when SUNS is reinstalled over a previous installation (including a partial installation that was interrupted by a reboot), a warning message will appear at one point saying that the “Instance” is invalid. This is from Microsoft’s MSDE database which is used for tracking SUNS temporary data, and is harmless. Just click OK and continue.

Manually Updating SASI Files

The installer puts seven new versions of SASI files into the DATAFILE folder for each and every SASI instance, and makes some edits to the sasixp.ini file for each instance. If the installer is unable to copy some of those files or make the sasixp.ini file changes, the specific schools affected will be listed in the “SASIXpErr.txt” file in the installation folder (by default, it will be at C:\SIFAgents\SASIXpErr.txt).

To manually copy the files and make the changes, you will need the installation CD.

1. Open the “SASIXpErr.txt” file so you can refer to it.
2. Insert the installation CD into the CD-ROM drive.
3. On the installation CD, open the folder called “support”.

Inside that folder you see a folder called “sasi_file_updates”.

4. Open the “sasi_file_updates” folder.

You see eight files. The files are:

- AFLM.MDX
- AEVT.DBF
- AEVT.DBT
- AEVT.MDX
- AFDM.DBF
- AFDM.MDX
- AFLM.DBF
- change_sasi_ini.txt

5. Copy the database files (MDX, DBF, and DBT files) to the appropriate DATAFILE folders on servers as indicated in the SASIXpErr.txt file.

6. For each server where you had to copy one or more files, open that server’s sasixp.ini file and add or change the following keys to the values indicated (this information is also in the change_sasi_ini.txt file):

```
[Monitoring]
UseMonitoring = True
UseEnrMonitoring = True
UseAttendMonitoring = False
```